

IN THE CLAIMS

1. (Previously presented) A method of treating pancreatitis in a mammalian subject comprising administering to said subject an effective amount of an amylin or an amylin analog, wherein the amylin analog has amylin agonist activity.
2. (Previously presented) The method of claim 1 wherein pain caused by pancreatitis in said mammalian subject is relieved.
3. (Previously presented) The method of claim 2 wherein administration of the effective amount of said amylin or amylin analog simultaneously treats pancreatitis and the pain associated therewith.
4. (Previously presented) The method of claim 2 wherein said subject has been diagnosed with pancreatitis.
5. (Previously presented) The method of claim 3 wherein said subject has been diagnosed with pancreatitis.
6. (Previously presented) The method of claim 1 wherein said subject is a human.
7. (Previously presented) The method of claim 2 wherein said subject is a human.
8. (Previously presented) The method of claim 3 wherein said subject is a human.
9. (Previously presented) The method of claim 1 wherein said amylin analog is ^{25,28,29}Pro-h-amylin.
10. (Previously presented) The method of claim 2 wherein said amylin analog is ^{25,28,29}Pro-h-amylin.

11. (Previously presented) The method of claim 3 wherein said amylin analog is ^{25,28,29}Pro-h-amylin.
12. (Previously presented) The method of claim 2 further comprising administering to said subject an analgesic.
13. (Previously presented) The method of claim 3 further comprising administering to said subject an analgesic.
14. (Previously presented) A method of improving a treatment for pancreatitis in a mammalian subject comprising administering to said subject an amylin or an amylin analog in addition to an agent or regimen used to treat pancreatitis, wherein said amylin analog has amylin agonist activity.
15. (Previously presented) The method of claim 14 wherein said agent is clinically used to treat pancreatitis.
16. (Previously presented) The method of claim 14 wherein said subject is a human.
17. (Previously presented) The method of claim 14 wherein said amylin analog is ^{25,28,29}Pro-h-amylin.
18. (Previously presented) The method of claim 14 further comprising administering to said subject an analgesic.
19. (Previously presented) The method of claim 14 wherein the agent is a pancreatic enzyme.
20. (Previously presented) The method of claim 14 wherein the regime includes a low-fat diet.

21. (Withdrawn) The method of claim 1 wherein said amylin analog has the amino acid sequence: ¹A₁-X-Asn-Thr-⁵Ala-Thr-Y-Ala-Thr-¹⁰Gln-Arg-Leu-B₁-Asn-¹⁵Phe-Leu-C₁-D₁-E₁-²⁰F₁-G₁-Asn-H₁-Gly-²⁵I₁-J₁-Leu-K₁-L₁-³⁰Thr-M₁-Val-Gly-Ser-³⁵Asn-Thr-Tyr-Z (SEQ ID NO:2) wherein

A₁ is Lys, Ala, Ser or hydrogen;

B₁ is Ala, Ser or Thr;

C₁ is Val, Leu or Ile;

D₁ is His or Arg;

E₁ is Ser or Thr;

F₁ is Ser, Thr, Gln or Asn;

G₁ is Asn, Gln or His;

H₁ is Phe, Leu or Tyr;

I₁ is Ala or Pro;

J₁ is Ile, Val, Ala or Leu;

K₁ is Ser, Pro, Leu, Ile or Thr;

L₁ is Ser, Pro or Thr;

M₁ is Asn, Asp, or Gln;

X and Y are independently selected amino acid residues having side chains which are chemically bonded to each other to form an intramolecular linkage; and Z is amino, alkylamino, dialkylamino, cycloalkylamino, arylamino, aralkylamino, alkyloxy, aryloxy, or aralkyloxy; and provided that when

(a) A₁ is Lys, B₁ is Ala, C₁ is Val, D₁ is His, E₁ is Ser, F₁ is Ser, G₁ is Asn, H₁ is Phe, I₁ is Ala, J₁ is Ile, K₁ is Ser, L₁ is Ser, and M₁ is Asn;

(b) A₁ is Lys, B₁ is Ala, C₁ is Ile, D₁ is Arg, E₁ is Ser, F₁ is Ser, G₁ is Asn, H₁ is Leu, I₁ is Ala, J₁ is Ile, K₁ is Ser, L₁ is Pro, and M₁ is Asn;

(c) A₁ is Lys, B₁ is Ala, C₁ is Val, D₁ is Arg, E₁ is Thr, F₁ is Ser, G₁ is Asn, H₁ is Leu, I₁ is Ala, J₁ is Ile, K₁ is Ser, L₁ is Pro, and M₁ is Asn;

(d) A₁ is Lys, B₁ is Ala, C₁ is Val, D₁ is Arg, E₁ is Ser, F₁ is Ser, G₁ is Asn, H₁ is Leu, I₁ is Pro, J₁ is Val, K₁ is Pro, L₁ is Pro, and M₁ is Asn;

(e) A₁ is Lys, B₁ is Ala, C₁ is Val, D₁ is His, E₁ is Ser, F₁ is Asn, G₁ is Asn, H₁ is Leu, I₁ is Pro, J₁ is Val, K₁ is Ser, L₁ is Pro, and M₁ is Asn; or

(f) A₁ is Lys, B₁ is Thr, C₁ is Val, D₁ is Arg, E₁ is Ser, F₁ is Ser, G₁ is His, H₁ is Leu, I₁ is Ala, J₁ is Ala, K₁ is Leu, L₁ is Pro, and M₁ is Asp; then one or more of A₁ to M₁ is a D-amino acid and Z is not amino.

22. (Withdrawn) The method of claim 14 wherein said amylin analog has the amino acid sequence: ¹A₁-X-Asn-Thr-⁵Ala-Thr-Y-Ala-Thr-¹⁰Gln-Arg-Leu-B₁-Asn-¹⁵Phe-Leu-C₁-D₁-E₁-²⁰F₁-G₁-Asn-H₁-Gly-²⁵I₁-J₁-Leu-K₁-L₁-³⁰Thr-M₁-Val-Gly-Ser-³⁵Asn-Thr-Tyr-Z (SEQ ID NO:2) wherein

A₁ is Lys, Ala, Ser or hydrogen;

B₁ is Ala, Ser or Thr;

C₁ is Val, Leu or Ile;

D₁ is His or Arg;

E₁ is Ser or Thr;

F₁ is Ser, Thr, Gln or Asn;

G₁ is Asn, Gln or His;

H₁ is Phe, Leu or Tyr;

I₁ is Ala or Pro;

J₁ is Ile, Val, Ala or Leu;

K₁ is Ser, Pro, Leu, Ile or Thr;

L₁ is Ser, Pro or Thr;

M₁ is Asn, Asp, or Gln;

X and Y are independently selected amino acid residues having side chains which are chemically bonded to each other to form an intramolecular linkage; and Z is amino, alkylamino, dialkylamino, cycloalkylamino, arylamino, aralkylamino, alkyloxy, aryloxy, or aralkyloxy; and provided that when

(a) A₁ is Lys, B₁ is Ala, C₁ is Val, D₁ is His, E₁ is Ser, F₁ is Ser, G₁ is Asn, H₁ is Phe, I₁ is Ala, J₁ is Ile, K₁ is Ser, L₁ is Ser, and M₁ is Asn;

(b) A₁ is Lys, B₁ is Ala, C₁ is Ile, D₁ is Arg, E₁ is Ser, F₁ is Ser, G₁ is Asn, H₁ is Leu, I₁ is Ala, J₁ is Ile, K₁ is Ser, L₁ is Pro, and M₁ is Asn;

(c) A₁ is Lys, B₁ is Ala, C₁ is Val, D₁ is Arg, E₁ is Thr, F₁ is Ser, G₁ is Asn, H₁ is Leu, I₁ is Ala, J₁ is Ile, K₁ is Ser, L₁ is Pro, and M₁ is Asn;

(d) A₁ is Lys, B₁ is Ala, C₁ is Val, D₁ is Arg, E₁ is Ser, F₁ is Ser, G₁ is Asn, H₁ is Leu, I₁ is Pro, J₁ is Val, K₁ is Pro, L₁ is Pro, and M₁ is Asn;

(e) A₁ is Lys, B₁ is Ala, C₁ is Val, D₁ is His, E₁ is Ser, F₁ is Asn, G₁ is Asn, H₁ is Leu, I₁ is Pro, J₁ is Val, K₁ is Ser, L₁ is Pro, and M₁ is Asn; or

(f) A₁ is Lys, B₁ is Thr, C₁ is Val, D₁ is Arg, E₁ is Ser, F₁ is Ser, G₁ is His, H₁ is Leu, I₁ is Ala, J₁ is Ala, K₁ is Leu, L₁ is Pro, and M₁ is Asp; then one or more of A₁ to M₁ is a D-amino acid and Z is not amino.

23. (New) The method of claim 1 wherein 0.1 µg to 1 mg of said amylin or said amylin analog is administered to said mammalian subject in a single, divided, or continuous dose.

24. (New) The method of claim 14 wherein 0.1 µg to 1 mg of said amylin or said amylin analog is administered to said mammalian subject in a single, divided, or continuous dose.

25. (New) The method of claim 1 wherein about 2 µg to about 8 mg per day of said amylin or said amylin analog is administered to said mammalian subject.

26. (New) The method of claim 14 wherein about 2 µg to about 8 mg per day of said amylin or said amylin analog is administered to said mammalian subject.